
Demining Support System: Field Support for Humanitarian Demining Missions Overseas

By

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The indiscriminate destruction and long-term damage caused by land mines have a devastating impact on economies and societies around the world. The United States Department of State estimates that there are 80 to 110 million land mines scattered in nearly seventy countries worldwide. These mines kill or maim a new victim every twenty-two minutes, a total of 26,000 per year, the majority of whom are civilian women and children in the world's poorest countries.¹ Efforts to destroy these mines are slow, painstaking, and expensive, costing as little as \$3 each to buy, but up to \$1,000 each to clear.² In the mid-1990s, the United Nations and the U.S. government estimated that 2.5 million mines were being planted, while only 80,000 were being removed per year.³ As a part of U.S. government mine removal efforts during the last decade, the Humanitarian and Security Training Group at Star Mountain has supported mine clearance programs to reduce the threat land mines pose to innocent civilians throughout the world. This group at Star Mountain is dedicated to supporting humanitarian demining and anti-terrorism projects specializing in the development of instructional materials, training systems, databases, software, electronic manuals, reference materials, and field training support. Star Mountain has a contract with RONCO Consulting Corporation in support of the U.S. State Department integrated mine action support contract. Star Mountain also has contracts with General Services Administration (GSA) Group 70 Information Technology Schedule, GSA Management Organizational and Business Improvement Services, and with the U.S. Department of Defense Research and Development Program.



DSS technical support for MARMINCA mine awareness efforts in Central America using DSS poster printer.

Since 1995, Star Mountain's Humanitarian and Security Training Group has developed several training and mine action programs including the deminer individual protection program, the Mine Action Information Center at James Madison University, demining operations instructional medical modules, MineFacts, an interactive database program on CD-ROM with information on 700 land mines from around the world, and following the Dayton Peace Accords, provided U.S. and NATO forces with information on the land mines used during the conflict in Bosnia and Herzegovina. As a part of field support for humanitarian demining training and clearance management efforts, Star Mountain also provides mine clearance support using the demining support system (DSS).

Star Mountain first developed the demining support system as a "proof of concept" for the U.S. Navy Office of Special Technology at Ft. Washington, Maryland to be used as a ruggedized, immediately deployable mine awareness and demining instruction tool in Eritrea. Since the original development of the DSS, systems have been used in an operational capacity by the U.S. Departments of Defense and State in over sixteen countries to train U.S. and international humanitarian demining teams on topics such as landmine clearance, mine awareness, mission planning, and emergency medical procedures.

As a part of U.S. humanitarian demining missions overseas, the DSS was developed to be a multilingual system which meets the cultural needs of deminers and those living in mine affected communities. The DSS provides mine clearance training materials and allows U.S. and host-country demining specialists to develop customized demining training and mine awareness materials that suit the needs of the country. The DSS also manages minefield operations by mapping landmine locations and tracking mine clearance efforts, providing geographic information system (GIS) and information management support, and delivering mine awareness programs to teach communities how to recognize and avoid land mines.

The DSS has been used for landmine clearance, awareness, and training efforts in Albania, Bosnia, Cambodia, Estonia, Germany, Guatemala, Honduras, Jordan, Laos, Mauritania, Mozambique, New Zealand, Nicaragua, Rwanda, United States, and Zimbabwe. Star Mountain field technicians have supported the operation and training of every DSS in the international community. Star Mountain video technicians have also supported field-testing and evaluation of landmine clearance systems in Guantanamo Bay, Cuba, Jordan, and Cambodia.

The DSS combines computer and environmental support hardware, software, and input/output devices, and is designed to meet the cultural needs for an international audience. The system is packed in flyaway cases, transportable to the host nation aboard aircraft, ship, or ground conveyances. It arrives ready-to-run and quickly assembles into an information management development workstation which can be used under adverse environmental conditions. A wide format printer produces custom, full-size maps and posters for classroom display or field presentations. The system can also be used present viewgraphs and full motion video. In addition to supporting humanitarian demining efforts, the DSS can be used for any training, information management, or information dissemination needs. The system may be used for public health awareness programs, international and/or domestic emergency management, and other circumstances which require an immediately deployable ruggedized hardware system.

The DSS is also being used in an operational context as an immediately deployable mine action center start-up hardware system. The system serves as a hardware platform compatible with U.N. developed software called Information Management System for Mine Action

(IMSMA). With this integrated DSS-IMSMA system, mine action personnel can track mine clearance efforts, report data of survey 1-3 information, and create customized maps with the system's GIS functionality.

For more information about the Demining Support System (DSS) or Star Mountain's Humanitarian and Security Training Group, please contact Star Mountain at (703) 960-7000.

End Notes

1 *Hidden Killers 1994*, U.S. Department of State

2 *Hidden Killers 1994*, U.S. Department of State

3 *Landmine Monitor Report 1999, Toward a Mine Free World*. International Campaign to Ban Land mines, 1999

About the Author

Deborah Repass is employed by Star Mountain, the company that developed the demining support system. She has been instrumental in the creation of a specific system for the Beecroft Initiative for Humanitarian Demining operations in Georgia, Armenia, and Azerbaijan. Deborah is currently working to develop a demining support system for Vietnam under contract to DSCA HA/D.